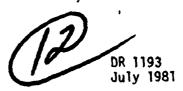


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METEOROLOGICAL DATA REPORT.

19305A MLRS,
Missile Numbers BN-013, BN-009, BN-010,
BN-011, BN-012, V02-007,
Round Numbers V-163/MD-29, V-164/MD-30,
V-165/MD-31, V-166/MD-32, V-167/MD-33, V-168/MD-34
11 July 1981,

by

DONALD C. KELLER Program Support Coordinator Phone Number (505) 679-9568 AVN Number 349-9568

(19) = 14 AM MASI- DK-1110

ATMOSPHERIC SCIENCES LABORATORY WHITE SANDS MISSILE RANGE, NEW MEXICO

ECOM

UNITED STATES ARMY ELECTRONICS COMMAND

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| Round Numbers V163/MD29, V164/MD30, V165/MD31, | 8. CONTRACT OR GRANT NUMBER(s) |
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| US Army Electronics Research & Development Omd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002 | 10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS |
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| Meteorological data gathered for the launching of BN013, BN009, BN010, BN011, BN012, V02-007, Round 165/MD31, V166/MD32, V167/MD33, V168/MD34 presente | No. V163/MD32, V164/MD30, V- |
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INTRODUCTION

19305A MLRS, Missile Numbers BN-013, BN-009, BN-010- BN-011, BN-012, and Vo2-007, Round Numbers V-163/MD-29, V-164/MD-30, V-165/MD-31, V-166/MD-32, V-167/MD-33, and V-168/MD-34, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1200, 1200:05, 1200:10, 1200:14, 1200:19, and 1200:23 MDT, 06 July 1981. The scheduled times were 1200, 1200:04.5, 1200:09, 1200:13.5, 1200:18 and 1200:22.5 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained in the following methods:

Observations:

a. Surface

- (1) Standard surface observations to include pressure, temperature (°C), relative humidity, dew point (°C), density (gm/m^3) , wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.
- (2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air:

(1) Low level wind data were obtained from Single Theodolite pibal observations at:

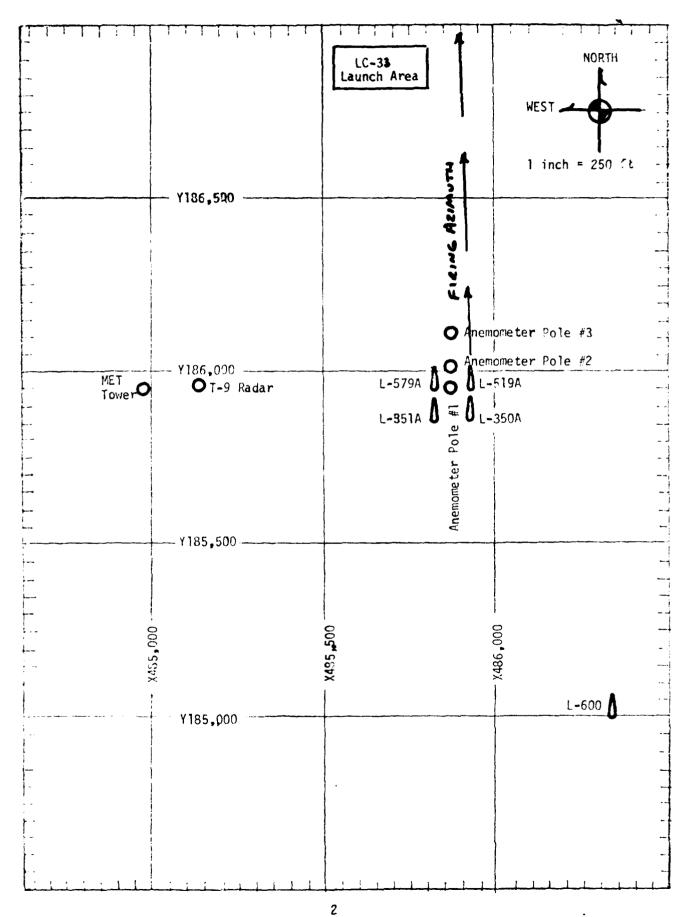
SITE AND ALTITUDE

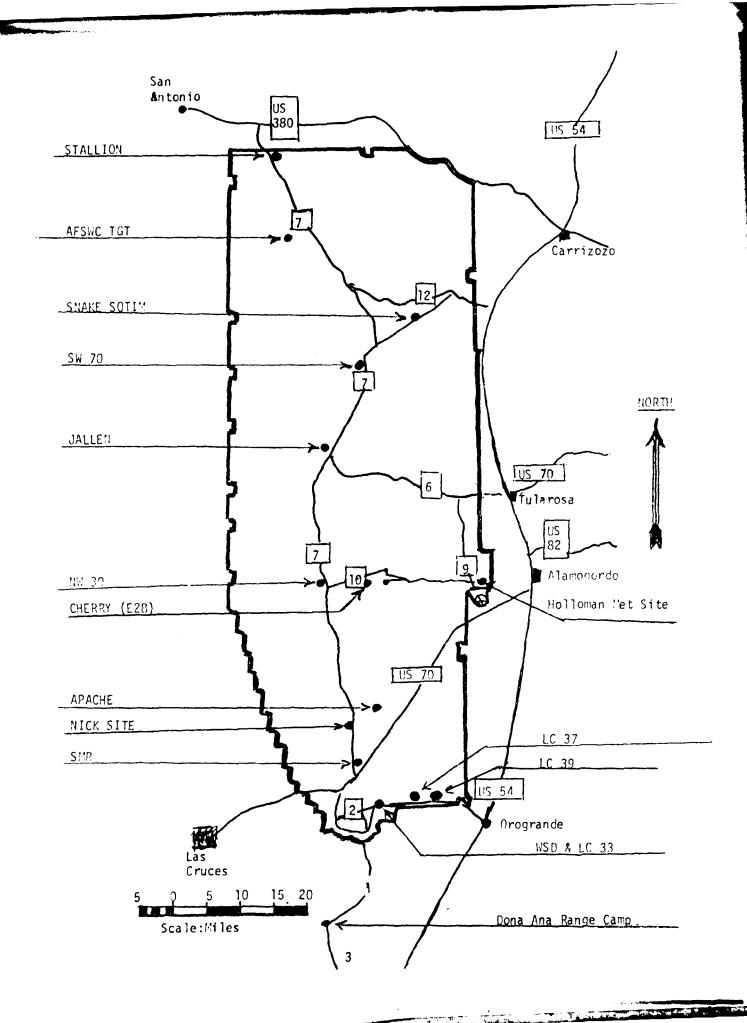
LC-33 2 KM NICK 2 KM

(2) Air structure data (rawinsonde) were collected at the following Met Sites:

SITE AND TIME

WSD 0900 MDT LC-37 1000 MDT WSD 1100 MDT LC-37 1200 MDT





PPOJECT SURFACE OBSERVATION

| | H=3983 | DIRECTION SPEED CHARACTER VISIBIL- degs Tn kts kts | \$0¢ | |
|---------------|-----------------------------------|--|-------|--|
| | 85,957,73 | CHARACT kts | | |
| -33 | 54 Y=18 | VIND SPEED kts | 05 | |
| STATION LC-33 | X= 484,982.64 Y=185,957,73 H=3983 | DIRECTION degs Tn | 165 | |
| | | DENSIIY U | 866 | |
| | | PELATIVE HUMIDITY % | 32 | |
| | | i I | 13.0 | |
| | | DEM POINT OF OC | | |
| | 1 | PATURE OC | 32.0 | |
| | VE/88 | 361:31 36: | | |
| | MUNIT VEYR | PRESSURE TEMPERATURE mbs of oc | 881.4 | |
| TABLE 1 | DATE 11 | TINE M.D.J. | 1200 | |

| | | | | | CLOUDS | | | | | |
|------------------------------|-----|--------|------|-----|--------|-----------|------|--------------|-------------|---------|
| DESTRUCTIONS | 15 | t LAYE | | 2n | d LAYE | 2nd LAYER | 1 3r | d LAYE | ď | REMARKS |
| TO VISIBÍLITY AMT TYPE HGT | AMT | TYPE | | AMT | TYPE | нст | AMT | AMT TYPE HGT | нст | |
| | က | Ω | 0059 | | | | 0 | CI | 0 CI 25,000 | |
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| PUTATION | | 0 | 2 | 80 | 0 | |
|---------------------------|----------------|---------------------|---------------------|---------------------|----------------|-----------------|
| PSYCHROPETRIC CC:PUTATION | TIME: MDT 1200 | DRY BULB TELP. 32,0 | WET DULB TETP. 19.2 | WET BULD OFPR. 12.8 | DEW POINT 13.0 | DELATIVE WINTED |

| POLE #1 X485,87 Y185,95 H4018.7 38.7 ft | 8,90 4 | | POLE # %485,87 Y186,01; H4033.5 53.0 ft | 4.9 3 2.00 7 | | 7485,87 (186,11 (4063.9 (33.6 ft | 7.29 6.06 2 | |
|---|------------|--------------|---|---------------------------|-------------|---|-------------------|-------|
| T-TIME SEC | DIR DEG | SPEED KTS | T-TIME SEC | DIR DEG | orer eng | I-TIME L.C | DIP DEG | (ATE) |
| I-30 | 158 | 04 | T-30 | 176 | 04 | T-30 | 162 | 04 |
| T-20 | 159 | 03 | T-20 | 172 | 03 | T-21 | 183 | 04 |
| T ₋₁₀ | 141 | 02 | T-10 | 201 | 01 | T_? | 174 | 04 |
| 0.CT | 128 | 02 | T0.0 | 209 | 01 | T <u> </u> | 181 | 04 |
| <u>I+10</u> | 120 | 02 | T+10 | C A | L M | | 193 | 04 |

TABLE 3 LC-33 METEOROLOGICAL TOWER AND MOMETER MEASURED WIND (OR ET TOWER)

| LEVEL #1, 1 X484,982.64 | | 73, H3983.00 (Fase) | LEVEL #2, 6 X484.082.64 | | 3, 83983. / (base) |
|----------------------------|---------|---------------------|----------------------------|---------|--------------------|
| T-TIME SEC | DIR DEG | SPEED KTS | T-TIME SEC | 012 013 | (SPLEO YES |
| T -30 | 141 | 04 | T-30 | 158 | 04 |
| T ₋₂₀ | 143 | 04 | T ₋₂₀ | 164 | 02 |
| T-10 | 152 | 03 | T-10 | 155 | 04 |
| то.0 | 143 | 03 | T0.0 | 139 | 04 |
| T+10 | 123 | 04 | T+10 | 147 | 05 |

| LEVEL #3, 10 X484,982.64 |)2 FEET Y185,057.7 | 3, H3983.00 (base) | LEVEL #4, 20 X484,982, 71 | | 3903.00 (base) |
|-----------------------------|-----------------------|--------------------|------------------------------|---------|----------------|
| T-TIME SEC | DIR DEG | SPEED KTS | T-TIME SEC | DIR DEG | SPEED FIS |
| T-30 | 150 | 04 | T- 30 | 134 | 06 |
| T-20 | 158 | 05 | T- 20 | 137 | 07 |
| T-10 | 148 | 06 | T-10 | 143 | 08 |
| т0.0 | 146 | 07 | T0.0 | 132 | 06 |
| 1+10 | 142 | 06 | T+10 | 134 | 07 |

T-TIME PILOT-BALLOOM MEASURED WITH DV 12

DATE 11 July 1981

SITE: LC-33 TIME: 1200 MDT SITE: NICK
TIME: 1200 MDT

WSTM COORDINATES:

WSTM COOPDINATES:

Y= 485,135.76 Y= 185,919.24 X= 470,734.56 Y= 255,734.64

H= 3,988.57

H= 4,126.57

| LAYER MICPOINT METERS AGL | DIRECTION DEGREES | SPEED KNOTS | LAYER MICROINT | DIPECTION DECOME | 05511 <u>81</u> 07 |
|------------------------------|-------------------|----------------|----------------|---------------------|-----------------------|
| SUBFACE | 165 | 05 | Sincret | 203 | 06 |
| 150 | 189 | 80 | 157 | 184 | 06 |
| 210 | 190 | 09 | 310 | 180 | 06 |
| 370 | 187 | 09 | 272 | 179 | 06 |
| 331 | 184 | 09 | 337 | 177 | 06 |
| 390 | 183 | 09 | 300 | 179 | 06 |
| 500 | 184 | 09 | 500 | 185 | 06 |
| 660 | 184 | 80 | 657 | 184 | 06 |
| 8 M | 177 | 06 | 800 | 182 | 07 |
| 95.1 | 157 | 05 | 950 | 180 | 08 |
| 1157 | 150 | 05 | 1150 | 177 | 80 |
| 1350 | 173 | 05 | 1350 | 171 | 07 |
| 1555 | 179 | 05 | 1550 | 162 | 06 |
| 1750 | 159 | 07 | 1750 | 158 | 06 |
| 500. | 170 | 07 | 2000 | 148 | 06 |

All data obtained from Single Theodolite Pilot-Balloon Tracked Observations.

AIMING AND T-Time COMPUTER MET MESSAGES

| WSD 0900 MDT | LC-37 1000 MDT | WSD 1100 MDT |
|----------------------------|-------------------|-------------------|
| METCM1324064 | METCM1324063 | 1,00 1.81 |
| 111500122883 | | METCM1324064 |
| | 111600124881 | 111700122882 |
| 00373004 29980883 | 00364007 30360881 | 00320005 30440882 |
| 01300006 29890873 | 01348011 30100871 | 01326009 30310872 |
| 02306007 29640848 | 02312005 29750846 | |
| 03307010 29380810 | | |
| | | 03317011 29630810 |
| 20100701 | 04323011 29140762 | 04351009 29230764 |
| 05348005 28840720 | 05374005 28810719 | 05355006 28860721 |
| 06294005 28450679 | 06306005 28390677 | 06274005 28470679 |
| 07307006 28050639 | 07292006 28020637 | |
| 08283005 27740601 | | 07306003 28130640 |
| | 08291005 27690600 | 08339005 27790602 |
| 09309008 27440565 | 09315005 27410564 | 09310008 27440566 |
| 10305008 27090531 | 10338005 27040530 | 10327006 27060531 |
| 11252 01 0 26800498 | 11273009 26720497 | |
| 12246011 26390453 | | 11290012 26790499 |
| 12240011 20390433 | 12240011 26300451 | 12248012 26340453 |

| 0E00eTIC COOKUJIMATES 32.40043 LAT DEG 106.37033 LUM UEG | | | | | | | | | | | | | | | | | | | |
|--|--|--------------|--------|--------|--------|--------|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|
| A12a | K-L.HUM. PEHCENT | 9.8 7 | 0.10 | 0.90 | 0.60 | ₽8•B | 51.0 | 0.7.0 | /2.0 | 01.0 | 73.0 | 56.0 | 38.0 | <1.0 | 0.0> | 0.07 | 45.0 | 18.0 | 0.51 |
| SIGNIFICANT LEVEL JAIA 1920ANN947 LHITE SANDS | TEMPLRATALE AIR DEWAATH DEGKELS CENTIOKADE | 3,5,5 | 8.04 | 13.5 | 11.01 | 11.1 | 3 C | 1,01 | 1.5 | 3.7- | 0•2- | -12.7 | -14,3 | 4.02- | -31.0 | 1.10- | 9,42 | 0.04 | 7 4 7 7 1 |
| SIGNETIC 14 LHI TABLE 6 | TEMP AIR DESKELS | 24.3 | 21.6 | 20.0 | 19.3 | 17.0 | 16.6 | 12.0 | 6.2 | 7.5 | -3.9 | 5.5 | 27.5 | 18.5 | -12.8 | -16.1 | -20.3 | -22.2 | -32.4 |
| 45.L M | PHESSOME GEORETHIC ALTITUDE MILLIPARS 115L FEET | 3089.0 | 5075.3 | 5732.8 | 6.5049 | 6.7777 | 8484.0 | 10527.8 | 12879.9 | 16724.7 | 16336.2 | 19492.0 | 20446.1 | 21299.3 | 23683.7 | 25144.0 | 26564.8 | 27927.6 | 32,051.8 |
| 90c 3y89.00 FEET NSL 090c BBS 8.0T | RILLIBAR BUZZJAG | 882•B | 8.058 | 9-36-6 | 611.2 | 772.6 | 755.4 | 760.0 | 2.24g | 0.955 | 522.8 | 0.693 | 8.184 | 461.10 | 8-624 | 0.004 | 377.6 | 0.150 | 300.0 |
| 5741104 ALTITUDE - 11 JULY 61 ASELISIOS, 40, 44 | | | | | | | | | | | | | | | | | | | |

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|----------------------|---|----------------|------------------------|-------------------|-----------------------------|----------------------------------|---|---|---------------------------------------|
| SIAFICE ACTION | L | 3989*10 FEET M | 1 25C | | 1920020447 | \ = : | | 0£00£11 | GEODETTIC COURT INATES |
| ASCENSION NO | 6447 | | - 2 | | WALLE SALIDS | | | 32. 106. | 32.40043 LA! DEG 106.37033 LOM JEG |
| | | | | _ | TABLE 7 | | | | |
| of One TREE | PRESSURE | TEM | TEMPERATURE | REL.HUM. DELISIT, | DENSIT, | St EEU of | INU DATA | T A | Inct x |
| ALTITUDE MSL FEET | MILLIDARS | AIR DEGREES | DEWPOINT CENTIGRADE | PERCENT | GM/CUBIC METER | SOURD NIVO ES | UINECTION DEGREES(TN) | SPEEU Ki40TS | OF REFRACTION |
| 3989.6 | 882.8 | 24+3 | 15.5 | 58.0 | 10201 | 674.4 | 210.6 | 4.1 | 1.000304 |
| 4600. | | 24.3 | 15.5 | 58.0 | 1025.8 | 4.470 | 508.4 | 4.1 | 1.000304 |
| 4500° | | 23.0 | 14.7 | 59.4 | 1012.0 | _ | 190°8 | 5.7 | 1.040298 |
| 5000-0 | | 21.8 | 13.9 | 60.8 | 6666 | _ | 100.9 | 7.6 | 1.000292 |
| 550a.c | 837.4 | 20.6 | 13.6 23.6 | 64.2 | 986.2 | - | 175-1 | 7.6 | 1.000208 |
| 0.0000 | 800.4 | 19.1 | 11.1 | 59.6 | 957.5 | 6666.1 | 172.5 | 10.8 | 1.000272 |
| 7000.0 | 794.2 | 18.3 | 11.1 | 65.9 | 543.3 | _ | 171-1 | 10.1 | 1.000269 |
| 3.00%/ | 780.3 | 17.5 | 11.1 | 66.2 | 929.3 | | 100.00 | 6∙8 | 1.000266 |
| ە(ئان) ئ | 760.5 | 16.9 | 4.7 | 62.7 | 915.2 | _ | 172.2 | B.3 | 1.000258 |
| 0.500. | 750.6 | 16.6 | ± • € | 51.1 | 901.0 | _ | 178.1 | 7.7 | 1.000244 |
| 9000c | 73%5 | 12. | ٠٠ نو | 55.0 | 888.3 | | 167.6 | 9 | 1.600242 |
| 0.0036 | 7.0.4 | 14.0 | **· | 59.0 | 875.R | | 193.4 | ກ : | 1.000239 |
| 0.00001 0.00001 | 7007 | 12.7 | 0 · 0 | 66.9 | 855.5 351.5 | 0.000 0.000 0.000 0.000 | 100.0 | t = | 1.000237 |
| 11000 | 0• ≎00 | 10·8 | , N | 68.0 | 834.0 | | 171.4 | 4.5 | 1.000229 |
| 11500.0 | 670.5 | 9.6 | 4.2 | 69.1 | 826.4 | | 170.6 | 5.5 | 1.000224 |
| 12000.0 | 663.2 | ₩. ₩ | 3.3 | 70.1 | 817.1 | | 172.5 | 0.9 | 1.000219 |
| 12509.6 | 651.2 | 7.1 | 2•3 | 71.2 | 800.0 | | 172.5 | 6.2 | 1.000214 |
| Totalo. | 634.5 | 0.9 | 1•3 | 71.7 | 794.7 | _ | 1/204 | 9. 9 | 1.000210 |
| 15500-0 | 627.4 | 2.5 | ∾ ° | 70.5 | 782.4 | _ | 1/1.1 | 0 u | 1.640209 |
| 14000.0 | 9.610 | 0 4 • # | 6.1 | 0000 | 75.0.4 | 1.000 | 1001 | 0.0 | 1.000200 |
| 15000 | 593.1 | 2.7 | 0.6 | 62.9 | 740.0 | | 157.0 | 4.7 | 1.00.0191 |
| 15500.0 | 584.1 | 1.8 | -4-1 | 64.5 | 735.3 | _ | 159.0 | 5.4 | 1.000135 |
| 10000.6 | 571.3 | 1.0 | 2.S- | 63.1 | 724.(1 | _ | 7.01 | 5. | 1.000182 |
| 1.5000.01 | 560.7 | ņ, | ئ. ئ | 61.6 | 712.0 | | 170.9 | ာ လ | 1.000178 |
| 17:00:0 | 2.000 8.050 | 5 6 | 0 • / • I | 1 • C 9 | 702.1 | 543.7 | 9.677 | | 1.001175 |
| 0.000041 | 524.6 | | 7.7- | 70.5 | 681.4 | | 11.7.1 | 7 · K | 1.000170 |
| 10500 | 519.5 | 1 • 4 - | | 70.6 | 671.1 | | 1:0.0 | 0.5 | 1.00010 |
| 19000.0 | 509.6 | 1.4. | -10.0 | 63.2 | 660.0 | _ | 146.7 | 1.6 | 1.500101 |
| 19590.C | 467.8 | -5.3 | -12.7 | 55.8 | 0.649 | _ | 141.5 | 10.3 | 1.000157 |
| ระบบบอะจ | 496.5 | ្ស • ១៖ | -16.0 | 46.4 | 634.5 | _ | 2.0+1 | 7°01 | 1.00152 |
| 2050IA+0 | E : : : : : : : : : : : : : : : : : : : | ۲۰/- | /•61- | 35.9 | 621.9 | - | 7 · C · C · C · C · C · C · C · C · C · | 10.5 | / #TubleT |
| 7 100 T 7 | 471.5 5.11.5 | £ | -23.5 | 20.00 | 613.0 | _ | Λ•0±1 | C . O . | 5 411001 - 1 |
| 3.000.7 | 6.704 | ÷ 6 | | 6.02 | 6.709 | _ | # 0 1 | 7 · · · · · · · · · · · · · · · · · · · | PC1000.1 |
| 7.00.1. | C 17 | 0.01 | 4.77 | 2000 | 2.5.50 1.0.00 1.0.000 | | 0 • 60 T | * 4 · O | 1.0.0.1 |
| . * VIII (77) | t | V | サーン・コー | | 57.4.1 | C • T > O | 1.47. I | 2 | 1 - 1001.52 |
| r. E. Fallow | י ר | J . T . | *** | • | 1 • 6 | _ |) · · · · · · · · · · · · · · · · · · · | • | 30 TILLIN T |

| 6200LT1C COURDIMATES 32.40043 LAF LEG 106.37033 LON UEG | INULA OF REFRACTION | 1.000130 | 1.000127 | 1.000120 | 1.000124 | 1.000162 | 1.000121 | 1.000119 | 1.000116 | 1.000114 | 1.000111 | 1.000109 | 1.000108 | 1.000106 | 1.600104 | 1.000102 | 1.000101 | 1.000099 | 1.000/1 |
|---|---|----------|-----------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|--------------|----------|---------|
| 010011 32. 106. | TA SPEEU KNOTS | 11.6 | 11.9 | 11.4 | 10.9 | 9.6 | 0.6 | 9.5 | 10.2 | 12.5 | 14.5 | 16.3 | 17.6 | 18.9 | 21.2 | | | | |
| | "INU DATA UTIRE TTU: S DEGREES (TN) K | 1.001 | 123.4 | 153-1 | 117.5 | 109.5 | 101.1 | 2.66 | 101.0 | 107·U | 106.0 | 103.7 | 93•1 | た・かん | 45.7 | | | | |
| 7 2 2 5 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | SPEED OF SOUND KNOTS | 629.h | 626.4 | 620.0 | 5.679 | 623.5 | 621.7 | 619.9 | 618.4 | 618.0 | 617.0 | 015.5 | 610.9 | 614.4 | 610.3 | 6.809 | 607°H | 600.2 | 2.409 |
| UPPLR A1N DATA 1920020447 HITE SAIUS | DENSITI GM/CURIL METER | 8.695 | 560.9 | 552.5 | 544.3 | 530,3 | 524.6 | 521.0 | 512.0 | 503.0 | 494.3 | 480°4 | 473.6 | 471.0 | 463.5 | 456.1 | 6.04t | 441.8 | #3#°# |
| - F | REL.HUM. PERCENT | 20.1 | 20.6 | 22.9 | 25.3 | 30.0 | 35.6 | 41.3 | 34.3 | 25.5 | 18.0 | 18.1 | 18.3 | 18.4 | 18.5 | 18.6 | 18.7 | 18.9 | 19.0 |
| T MSL N DT | TEMPERATURE R DEMPOLIT EES CENTIGRADE | -30.3 | -31.0 | -30.9 | -31.0 | -30.5 | -30.0 | -29.8 | -32.5 | -36.1 | 1.04- | -41.1 | -42.1 | -43.0 | 0.44- | -45.0 | -46.9 | 0.44- | 0.84- |
| 39.59.60 FEET MSL 0909 HRS MDT 7 | TEMP AIR DESRÉES | -12.1 | -13.1 | -14.4 | -15.7 | -17.1 | -18.6 | -20.1 | -50.9 | -21.6 | -22•4 | -23.6 | 6.42- | -26.1 | ->7-3 | -28.6 | -29∙8 | -31.0 | -32+3 |
| | PRESJURE MILLIUARS | 421.2 | 418.8 | 410.5 | 40% | 394.3 | 330.4 | 378.6 | 370.9 | 363.3 | 355.9 | 346.5 | 341.2 | 354.1 | 327.1 | 320.3 | 313.6 | 307.1 | 300.7 |
| STATION ALIIIUDE 11 JULY 61 ASCENSION NO. 44 | GFUNETRIC ALTITUDE MSL FEET | 23500·¢ | 0•6004 ₹ | 24500.0 | J•000cz | 25500.4 | 0•000a≥ | 20500.0 | 27000.0 | c.005/2 | 200005 | 285AA+9 | 7.3006.7 | 0.00462 | 30000 | 30500.0 | 31000.0 | 31500.0 | 32000.0 |

| 0.4 | 510 | | | | | | | | | | | | |
|---------------------|------------------|--|---|---|---|--|--|--|---|--|---|---|---|
| ~ | | 6./ | 10.6 | 7.5 | 4.1 | 0.3 | 4.6 | 8.0 | 10.3 | 10.5 | 10.6 | 15.9 | |
| #1:10 C | DE GKLES (TN) | 179.9 | 171.9 | 179∙⊍ | 100.2 | 172.5 | 150.1 | 179.8 | 141.5 | 158.0 | 115.4 | 104.3 | |
| NEL MULT | | h1. | 64. | 54. | ٠/ ٢ | 71. | ./9 | 63. | 50. | -12 | 20. | 18. | 19• |
| ERATURE DEMPOL.1 | CENTIGRADE | 13•н | 11.1 | 4.9 | 6.1 | 2.5 | -2.4 | -7.0 | -12.7 | -28•0 | -31.1 | 6.04- | -48.1 |
| TEMP AIR | DEGINEES | 21.6 | 13.6 | 16.3 | 12.0 | 7•0 | 3.2 | 6: | -5-3 | 9.6- | -16.1 | -23.4 | -32.4 |
| EOPOTIMIAL | FELT | 5072. | 6790. | 8603. | 10'517. | 12540. | 14607. | 16988. | 19464 | 22155. | 25105. | 28353. | 31907. |
| PRESSURE GE | MILLIGARS | 850•0 | ₽•00A | 0.057 | 0.007 | U•059 | 0.009 | 550.0 | 500.0 | 0.054 | U*60h | 350.0 | 0.005 |
| | REL.MO WIND DATE | GEOFOTINIAL TEMPERATURE MEL-MILM. AIR DEMPOIM PERCENT DIME FELT DEGREES CENTIGRADE DEGRE | GEOPOFFNIAL TEMPERATURE REL-HD WIND DAIR AIR DEWPOLLS PERCENT DIRECTION FELT DEGREES CENTIGRADE DEGREES(TR) 5072, 21.6 13.4 hl. 179.9 | GEOPOFFNTIAL TEMPERATURE REL-NID WIND DAIR AIR DEMPOIL PERCENT DIRECTION FELT DEGREES CENTIGRADE DEGREES (TN) 5072. 21.6 13.4 h1. 179.9 10.6 11.1 b2. 171.9 10.0 | GEOPOFFNTIAL TEMPERATURE REL-NID.1. WIND DATE AIR DEWPOIL.1 PERCENT DIRECTION FELT DEGREES CENTIGRADE DEGREES(TN) 5072. 21.6 13.4 61. 179.9 6790. 10.6 11.1 62. 171.9 10 8603. 16.3 6.4 52. 179.0 10.1 10.2 10.5 10.2 10.5 10.3 10.5 10.4 10.5 10.5 | GEOFOTFNTIAL TEMPERATURE REL-MID WIND DATE DEWPOL PERCENT DIRECTION AIR DEWPOL PERCENT DIRECTION DEGREES CENTIGRADE DEGREES(TR) 5072. 21.6 13.4 61. 179.9 10.570. 13.6 11.1 62. 171.9 10.1 61.0517. 12.0 6.1 61. 61. | GEOFOFFNTIAL TEMPERATURE REL-MID WIND DATE DEWPOLL, I PERCENT DIRECTION AIR DEWPOLL, I PERCENT DIRECTION DEGREES CENTIGRADE DEGREES (TR) 15072. 21.6 13.4 61. 179.9 10.570. 13.6 11.1 62. 171.9 10.1 65.0 10.517. 12.0 6.1 67. 100.2 12.540. 7.0 2.2 71. 172.5 6.1 | GEOP-OFFNIAL TEMPERATURE REL-HID WIND DARFET DEWPOL PERCENT DIRECTION DEGREES CENTIGRADE DEGREES(TR) 5072. 21.6 13.8 61. 179.9 16 603. 16.3 6.4 52. 171.9 16 10517 12.0 6.4 52. 179.0 12540. 7.0 2.2 71. 172.5 6.1 12540. 3.2 -2.4 67. 15611 4.667. | GEOPOFFNIAL TEMPERATURE REL-HILL. WIND DARFELS OF THE DEWPOLAT PERCENT DIRECTION DEGREES CENTIGRADE DEGREES (TR) FELT DEGREES CENTIGRADE DEGREES (TR) 5072. 21.6 13.4 h.l. 179.9 10 6790. 13.6 11.1 62. 171.9 10 10517. 12.0 6.1 h.l. 180.2 12540. 7.0 2.2 71. 150.0 14667. 3.2 -2.4 67. 150.1 169809 -7.0 63. 179.9 | GEOPOFFNIAL TEMPERATURE REL-HILL. WIND DARFERS DEWPOLAT PERCENT DIRECTION DEWPOLAT PERCENT DIRECTION DEGREES CENTIGRADE DEGREES (TR) 5072. 21.6 13.4 61. 179.9 10 6790. 18.6 11.1 62. 171.9 10 10.17. 12.0 6.4 52. 179.0 10.17. 12.0 6.1 6.1 6.1 6.1 10.2 12.0 12.0 12.0 6.1 12. | GEOPOFFNTIAL TEMPERATURE REL-HILL. WIND DARFERS DEWPOLAT PERCENT ULARCTION DEWPOLAT PERCENT ULARCTION DEWPOLAT PERCENT ULARCTION DEGREES CENTIGRADE DEGREES (TR) 13.4 bl. 179.9 bl. 12540. 12.0 bl. 12.5 bl. 12.5 bl. 12.5 bl. 194645.3 -12.7 bl. 11.5 bl. 1 | GEOFFNTIAL TEMPERATURE REL-HILL. WIND DARROLLIS PERCENT ULARCTION DEWPOLLS PERCENT ULARCTION DEWPOLLS PERCENT ULARCTION DEWPOLLS PERCENT ULARCTION DEGREES CENTIGRADE DEGREES (TN) DEGREES | GEOFFNTIAL TEMPERATURE REL-HILL. WILLD DAR DEWPOLLS PERCENT ULACTION DEWPOLLS PERCENT ULACTION DEWPOLLS PERCENT ULACTION DEWPOLLS PERCENT ULACTION DEWPOLLS PERCENT ULACTION DEWPOLLS PERCENT ULACTION DEWPOLLS PERCENT ULACTION DEWPOLLS PERCENT ULACTION DEWPOLLS PERCENT ULACTION DEWPOLLS PERCENT DEWPPOLLS PERCENT DEWPOLLS PERCENT DEWPOLLS PERCENT DEWPOLLS PERCENT |

in Service Tree

| ~ | MSL T | SIG ₁₄ F ICAN 1920 LC-37 | SIGIIFICANT LEVEL LALA 19201HII152 LC-37 | ۷۱۶ | GEODETIC COURITMATES 32.48175 LAT DEG |
|-------------------|--------------------|---|--|-----------|--|
| . KS10t, t.0. 152 | | TABLE 9 | | | 106.31232 LON DEG |
| Phessul | PRESSURE GEOMETRIC | 1EMPERATURE | ATunt . | R.L. HUM. | |
| | ALTITUDE | A1R D | DEMPCINI | PERCENT | |
| MILLIBAR | MILLIBARS MSL FELT | | EN116KADE | | |
| 880.6 | 4051.4 | 28.3 | 15.4 | 0.67 | |
| 876.2 | 4196.9 | 25.3 | 10.5 | 48.0 | |
| 850.0 | 5070.4 | 22.6 | 13.4 | 56.0 | |
| 8-838 | 5791.2 | 20.5 | 14.2 | 0.60 | |
| 9•008 | 6771.4 | 18.0 | 11.8 | 0.7.0 | |
| 781.8 | 7441.1 | 18.0 | 8.8 | 55.0 | |
| 715.6 | 9913.2 | 13.4 | 0•7 | 01.0 | |
| 1000 | 10522.4 | 11.8 | 1.0 | 0.80 | |
| 671.2 | 11673.8 | 8.7 | 1.0 | 0.80 | |
| 9.449 | 127/1.3 | 6.5 | <.2 | 74.0 | |
| 610.0 | 14254.5 | 3.6 | -1.7 | 0.80 | |
| 8.109 | 14616.0 | 3.0 | -1.7 | 71.0 | |
| 8•485 | 15378.3 | 1.5 | ان، د | 0.60 | |
| 559·4 | 16552.9 | - | -p.7 | 0.00 | |
| 518.8 | 18523.5 | 9•#- | -0.5 | 76.0 | |
| 200.0 | 19477.6 | 0.9 | -15.0 | 0.04 | |
| 8.674 | 20536,9 | -7.7 | -17.5 | 45.0 | |
| h•h9h | 21369.8 | -9.1 | -43.4 | 31.0 | |
| 9.644 | 22192.5 | -10.3 | 1-5:2- | د7.0 | |
| 0.004 | 25121.7 | -16.2 | -30.4 | 78.0 | |
| 377.8 | 26525.5 | 20.5 | -32.6 | 32.0 | |
| 357.6 | 27401.0 | -22.0 | -3B | 0.02 | |
| 4.4415 | 23767.7 | -24.3 | -41.5 | 19.0 | |
| 312.6 | 31007.4 | -29.7 | 4・24- | 20.02 | |
| 300.0 | 32027.3 | -32.8 | 0.04- | 0.02 | |

| 0E01)_TIC_C0016D_HATES 32.40175_CAT_UEG 1U6.31232_L017_CEG | THULX OF REFRACTION | 1.000297 | 1.000264 1.000279 1.000270 | 1.330258 1.000258 1.030249 1.000244 | 1.000240 1.000236 1.000234 | 1.00022 1.00022 1.000218 1.000215 | 1.000195 1.000200 1.000196 1.000192 1.000167 | 1.430178 1.60.0175 1.10.0172 1.10.0170 1.00.0167 1.00.0161 | 1.000149 1.000144 1.000144 1.000141 1.000141 1.000135 1.000135 |
|--|---|----------------------------|--------------------------------------|--|----------------------------------|--|---|---|--|
| 0£00LTIC 32.4 106.3 | SPELU SPELU KuOTs | 7.0 | 7.8 3.6 9.5 | 9.6 7.9 8.1 | 2.50 | 24000 20400 20400 | | 3 7 9 7 5 3 3 ; | 11.2 12.2 10.0 10.0 9.6 9.6 |
| | THU DATA DIRECTION S DEORECS(14) K | 2050 1930 1810 | 1/0.0 | 171.5 174.5 187.9 195.4 | 200.3 | 179.6 171.0 171.0 171.5 | 10.95 10.05 | 100.7 175.7 100.7 100.7 100.7 100.6 | 166.7 144.7 114.7 115.7 115.7 115.0 115.0 |
| 741K | SPLEU OF SCUIND KNOTS | 674.3 | | 0000 0000 0000 0000 0000 | | | | | 0.56.2 0.55.2 0.50.1 0.52.2 0.52.2 0.54.3 |
| 01918 A15 DA16 1920180152 LC-37 TABLE 10 | DENSITI S GM/CUBIC METER | 1010.1 | 983.9 971.4 958.6 | 924.7 915.2 902.0 889.0 | 870-1 863-6 851-9 | 840.8 829.8 813.1 800.1 | 782.6 771.1 759.4 747.9 730.5 | 712.0 702.1 691.8 681.7 671.8 661.2 | 640.0 623.7 613.0 603.4 599.4 589.6 571.0 |
| | REL.HUM. PERCENT | 45.0 50.8 55.4 | 57.8 60.7 64.8 | 55.0 57.4 58.4 58.6 58.6 | 60.0 62.0 67.7 | 68.0 68.0 69.8 72.5 | 71.1 69.0 70.0 70.0 68.1 64.2 | 60.4 63.6 67.7 71.7 75.3 62.5 | 47.0 45.1 37.2 30.4 27.9 27.1 |
| TSL 10 | TEJAPERATURE R DEWPOINT EES CEJATIGRADE | 13.5 | 12.7 12.2 11.9 | 8.8 7.7 7.7 | 6.5 6.1 | 4 0 0 0 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | -7.6 -7.3 -7.7 -7.7 -8.1 -11.3 | -16.2 -17.4 -20.4 -25.0 -25.1 |
| 4051.37 FEET 1.151 1000 185 10 1 | TEMP AIR DEGRÉES | 28.3 24.4 22.8 | 21.3 20.0 18.7 | 17.9 | 13.2 | 10.5 9.2 8.0 7.0 | 10040 0400 0400 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | -6.8 -7.6 -7.6 -9.3 -10.0 -11.9 |
| ية ر | PRESSURE HILLIJARS | 880.6 867.9 852.1 | 837.3 822.7 800.3 | 780.2 760.3 752.7 733.4 | 720.3 710.4 700.6 | 687.9 675.5 665.2 651.1 | 627.4 612.8 612.8 593.2 592.1 571.2 | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | 469.9 471.2 471.2 471.2 45.0 45.0 435.3 43.3 |
| STALLON ALTITUD 11 JOLY e1 ASCLMSION NO. | GFUNETRIC ALTITUDE NSC PEET | 4051.4 4500.0 5809.0 | 5596.0 5596.0 5597.0 7597.0 | 7500.0 | 9500.0 10000.0 | 11509.0 11509.0 12000.0 12500.0 | 13500.0 14600.0 14500.0 15500.0 16500.0 | 10500.0 17500.0 17500.0 10000.0 10500.0 19600.0 | 200000 2150000 2150000 2250000 2250000 2350000 |

| 52-40175 LAT DEG 52-40175 LAT DEG 106-31232 LAH DEG | , , | Y JOH Y | OF REFRACTION | | 1.00.1 | 1.000126 | 1.0001 | 1.000122 | 1.000120 | 1.000118 | 1.600116 | 1.000113 | 1.600111 | 1.010109 | 1.000108 | 1.000100 | 1.600104 | 1.000102 | 1.000101 | 6500010-1 | 1.00097 |
|---|-------------------|---------|--------------------------|--------|---------|----------|---------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------------|----------|----------|-----------|---------|
| 0L0DET1 52. 146. | | ς: | SPEED NIIOTS | | 10.6 | 11.3 | 11.1 | 10.9 | 10.6 | 10.6 | 10.8 | 12.3 | 13.9 | 15.8 | 17.3 | 18.5 | 21.3 | | | | |
| | A 1 A 2 1 4 1 4 1 | | DINECTION DEGREES(10) | | 113.1 | 115.0 | 110.2 | 104.5 | 2.50 | 6.16 | 98•1 | 7.00 | 100.0 | 91.6 | 21.6 | 6.76 | 9506 | | | | |
| In I A | SON'T | | ONOS STONE | | **/70 | 5.020 | 6.479 | 6,50 | 07.1.6 | 019.6 | 610.9 | 01001 | 617.0 | 615.5 | 613.4 | C.710 | 6119 | 9.609 | 6000 | 606.1 | 604.1 |
| 1920184152 1920184152 LC-37 | _ | | GM/CURIL N. TER | | h · Toc | 550,0 | 544. | 530.0 | 520.2 | 520.5 | 511.4 | 502.3 | 493.8 | 480.1 | 478.4 | 470.1 | 463.1 | 455.6 | 446. | 441.6 | 435.1 |
| - | TABLE 10 | | PERCENT | 2.60 | 2 | 27.8 | 28.0 | 29.1 | 30.5 | 31.9 | 27.7 | 23.2 | 19.8 | 19.3 | 19.1 | 19.3 | 19.5 | 19.8 | 20.0 | 20.0 | 20.0 |
| T 8.5L 8 DT | TEMPERA, TURE | | AIR DEMPOINT DESPENDE | 5 6 1 | 0.03 | h•62- | -30.5 | -31.0 | -31.7 | -32.5 | -34.6 | -36.9 | -39.2 | -40.5 | 9-14- | -42.5 | す・パカー | た・サヤー | -45.2 | -46.5 | 6.14- |
| 4051+37 FEET MSL 100n HRS N DT 2 | TEMP | • | A.1K Degrees | 0.7 | ` | 6.41- | -16.0 | -17.3 | -18.7 | -50.1 | ->0·8 | -21.5 | -22.4 | -23.6 | -24.A | -20.0 | -27.2 | 4-82- | -59.5 | -31.1 | -35.7 |
| 1119bc 405 104 152 | PRESSURE | • | MILLIDARS | | | 410.0 | 401.9 | 392.9 | 3000 | 370.2 | 370.5 | 365.6 | 350.5 | 340.2 | 341.0 | 333.9 | 327.0 | 320.2 | 310.5 | 300.9 | 300.4 |
| STALION ALIITUDE (11 JULY AL ASCLIISION (00 15) | OF UAR TRIC | | ACITIONE MSL FEET | 2.0004 | | 2450A.F | ë•000ç₹ | u•00552 | COUUU.7 | J•00°;02 | 0.00072 | 27500.9 | 2000c | 20500.0 | 0.00063 | 2950P.P | ∂€0000 € | 30500.0 | 3100E.E | 0.150n.a | 5500n.c |

| OE. ODE TIC. COOKUTMATES 52.40175 LAT LEG 106.51232 LON DEG | | | | | | | | | | | | | | |
|---|-----------------------|--------------------|-------|-------|-------|--------|--------|----------------|--------|--------|--------|--------|--------|--------|
| vE.UDE 71C 32+4 106+3 | UA FA | N) KN01S | 7.2 | 10.0 | 2.6 | 2.7 | 8.0 | 6.0 | £.3 | 7.9 | 6.6 | 11.1 | 15.3 | |
| | AINO DAFA | DEGREES (T | 179.5 | 161.3 | 169.7 | 197.4 | 171.5 | 100.1 | 195.4 | 153.0 | 129.9 | 108.9 | 98.5 | |
| LVELS 52 | NEL . HUR. | TENCEN. | 50. | 67. | 58. | • 20 | 73. | 71. | • 4') | *6# | 27. | 20. | 19. | 20• |
| , "NDATORY LLVELS 1920181152 LC-37 TABLE 11 | TEMPERATURE | DEGREES CLNTIGRAUL | 13.4 | 11.7 | 7•6 | 6.1 | 7.e | 6.1- | -7.n | -15.0 | -25.b | -30.4 | -40.5 | -48.0 |
| 1 1 | TEMP | DEGREES (| 22.6 | 18.0 | 15.8 | 11.8 | 7.0 | 2 · P | -1.0 | 0.9- | -10.3 | -16.2 | -23.3 | -32.8 |
| T ASL T | OPOTENTIAL | FELT | 5067. | 6787. | 8299. | 10512. | 12532. | 14678. | 16977. | 19450. | 22135. | 25079. | 28327. | 31962. |
| JDL 4 u51. 37 FEET MSL 1000 HRS N.DT 152 | PRESSUKE GEOPOTENTIAL | MILLIPARS | 0.069 | ₽.00° | 750.0 | J.007 | 6.50.0 | 3• 00 → | 550.n | 500.0 | 450.0 | 0.004 | 250.9 | 300.0 |
| STATION ALTITUDE 4. 11 JULY 81 ASCENSIUN NO. 152 | | | | | | | | | | | | | | |

| STATION ALITTUDE 3989.AO FEET MSL 11 JULY 8:1 ASCENSION NO. 448 | јј | SIG.11 IC/ 192 2011 2011 178LE 12 | SIGATI ICANT LEVEL DATA 19200/19446 MHITE SMIDS | ,A I A | SEOULTIC COUNTITATES 52.44843 LAT NEG 106.37033 LOH DEG |
|---|--------------------------------|---|---|-----------|---|
| PNESSUME | PHESSUME GEOMETHIC | TEMPL | TEMPLRATUME | R-L-HUNI. | |
| WILLIBARS | ALTITUDE VICLIBARS NSC FELT | AIR DEGLELS | AIR DEWAGINE DEGLES CENTIGRADE | PERCENT | |
| 882.2 | 3989.0 | 29.3 | 14.7 | 0.1 | |
| £5n•Û | 5070.4 | 25.0 | 1, 0 | D•04: | |
| 795.8 | 2.955.0 | 19.6 | 11.1 | 0.85 | |
| 730.8 | 9348.3 | 14.7 | 0.0 | 0.56 | |
| 0.007 | 10540.6 | 11.8 | 7•0 | 0.40 | |
| h•6h0 | 12592.5 | 7•6 | 6.1 | 0.70 | |
| 031.8 | 13336.3 | 6.4 | 0.1 | 0.10 | |
| | 16348,3 | ~ | 0.0 | 63.0 | |
| 8+544 | 16753.2 | -:- | ٠,٠٠ | 0.40 | |
| | 16323.9 | 4.4 | 1.01 | 75.0 | |
| | 19507.9 | -5.4 | -14.6 | 984 | |
| | <1206.2 | -8-4 | 4.47- | 70.0 | |
| 6.004 | 25154.6 | -16.2 | 9-36- | 22.0 | |
| | 26884.7 | -20.5 | -57.0 | <1.0 | |
| \$53.8 | 27814.9 | -21.7 | 30.05- | 70.0 | |
| 2000 | 32004 | C.CK. | - 6.79 | 9 | |

| stallon pelitube 11 July el Ascessios po | UDE 3/9 | 3989•00 FEET ⊌S 120c HRS M DT 8 | т _н 5с. м 0Т | | UPPLR Ain DAI 1920D20440 WHITE SMBDS | 4 3 3 3 | | o£ ODE 11: 32• 106• | 0E ODE TIC COUNDITIATES 32-40043 LAT DEG 106-37033 LOIT DEG |
|--|----------|---------------------------------------|-----------------------------------|----------------|--|-----------|--------------|---------------------------|---|
| | | | | | TABLE 13 | | | , | |
| GFOIN, TRIC | PRESSURE | | TEMPERATURE | REL. HIM. | DENSITY | SPLLO OF | INC DATA | TA | X total |
| ALTITUDE MSI EFFT | | A18 04 (34) 570 | DEWPOINT Coll.Trolland | PERCENT | CM/CUBIC M. TER | Country | ULKEL LIGHT | SPEC COTA | 06 30 + 30 - 3 |
| | | ()(()) | | | נוני | 5 1014 | DESKLEST | 0 | NET 11 OF |
| 6.6895 | 882.2 | 29.3 | 14.7 | 41.0 | 1000.B | 0.080 | 170.0 | 5.1 | 1.000294 |
| Ů*600t | 801.9 | 29.3 | 14.7 | 41.1 | 100001 | 6.670 | 1.01 | 5.1 | 1.000294 |
| 4500.0 | 860.8 | 27.3 | 13.7 | 43.4 | 99003 | 67/10 | 172.5 | t.3 | 1.000209 |
| C•6000 | 852.1 | 25.5 | 12.1 | 45.7 | 980.1 | | 1.4.1 | 7.6 | 1.000233 |
| 0.00°C | 831.3 | 25.A | 12+3 | 48.7 | 97,00 | | 175.6 | ٠.5 و•3 | 1.000279 |
| 0.000 | 822.d | 22.3 | 12.0 | 51.9 | 963.8 | n-17a | 1/3.5 | 16.0 | 1.000276 |
| 6.0000 | 700.5 | 6.02 | 9.5 | 55•I | 931cb | 5.U/q | 6.8/T | 10.5 | 1.000272 |
| 7, 66 7 | 0.467 | 0.61 | 0-17 | , | 5.70h | 0.000 | 7.55 | 3.01 | 1.000268 |
| | 7,000 | 0 t | . 5 • 6 | 50.00 50.00 | 960.9 | ~ | 7 · 60 T | ى ئ | 1.00000 |
| 0.00 | 715 2. 2 | | | 000 | T•4:16 | 6.000 | C • 96 T | • 0 • r | 1 0 0003 |
| 00000 | 730.07 | 10. | 7•/ | 0.63 | G*105 | 0.+00 | 7.002 | K • L | 7 +20000 |
| 0.0016 | 720.8 |) H | | 0.4 % 0.4 % | 809.0 | #•cua | 0.000 | 1. | 1.000.1 |
| | 713.8 | | 0.0 | 0.00 | 7.010 | 1000 | 0.167 |) · | 0.000.000 |
| 3.10101 | 701.0 | 100 | N 6 | 0.00 | 0.4.00 | 1.000 | 19161 | - r | 1.0.0041 |
| 0.00011 | Ú884.3 | 0.01 | 0 a | 64.7 | 0 · 7. 0 | 6584 | 150.00 | 3 | 1.000021 |
| 11500-0 | 6779 | K | . · · | 65.4 | 7 7 6 | # 0000 | 7.007 | 0 *** * 4 | 1-000222 |
| 1/10000 | 660.6 | 8.8 | ÷. | 66.1 | 815.4 | 0.000 | 157.5 | 2.0 | 1.000218 |
| 145,000.5 | 651.6 | 7.8 | 5.0 | 6.99 | 804.7 | _ | 102.7 | 9. 5 | 1.600213 |
| 15060.0 | 039.7 | 6•9 | . | 63.7 | 792.tb | | 1.3.6 | 3.5 | 1.000207 |
| 13500.0 | 657.9 | 6.1 | 6•- | 61.1 | 7811.7 | | 1.6/1 | 3.3 | 1.000202 |
| 14000 | 610.3 | 5.0 | -1.8 | 61.4 | 7.692 | 650 • B | 105.4 | 3.3 | 1.00198 |
| 145,00.4 | 6**09 | 0•4 | 7.5- | 61.8 | 757.9 | _ | 7.00T | &. - | 1.000194 |
| 15000 | 90.60 | O•5 | -3•6 | 62.1 | 740.7 | 040.3 | 1/8-/ | 6.2 | 1.000190 |
| 15500 | 9.285 | 1.9 | ស • | 62.4 | 735.7 | C4 7• 1 | 1.001 | 7.2 | 1.000166 |
| Teller | 3/1/8 | • | ار ان ا | 62•₿ | 724.3 | 2.040 | 101 | 7.8 | 1.000162 |
| 17000-0 | 540.6 | - a | ۳ - ا ا | 5.4°C | 713.7 | 2.772 | ** VOT | ٥٠,٢ | 1.000178 |
| 175,00.0 | 5411.2 | | - C | 0 1 1 4 | 697 7 | | 1/101 | 4 29 | 1.600172 |
| 13000 | 529.9 | 1 47 | | 70.7 | 68 1 | 4 0 0 0 0 | 174.5 | | 1,10001 |
| 13,00 | 513.0 | 1 2 4 | | 71.0 | 677.1 | 0.000 | 200 | N. 5 | |
| 19600.0 | 503.0 | -5.0 | -11.6 | 57.6 | 661.1 | t.50.to | 107.1 | 8.8 | 1.010101 |
| 1.9500.0 | 500.5 | -5.4 | -1446 | 48.2 | 8.649 | 638.0 | 1001 | 12.0 | 10111155 |
| <i>5</i> ∙0000> | 490.5 | -C•3 | -17.1 | 41.6 | 639.5 | 6.50 - 6 | 100 1 | 14.0 | 1.000151 |
| 200000 | 481.6 | -7.2 | 5. CI= | 35.1 | 659.4 | 1.000 | 165.5 | 15.6 | 1.000147 |
| C1000-2 | 471.8 | -8.0 | -<3.0 | 28.7 | 619.4 | 634.6 | 157.0 | 13.9 | 1.000143 |
| <1500.12 . 1100.0 | 9.79% | 0.5- | 0 • C 2 • C | 25.7 | 603.6 | 4.000 | 1,00,1 | 12.5 | 1.:00140 |
| U + 13 11 12 7 | 0.00 | 0.0[- | -26•1 | 2.62 | 5.74.6 | 650.0 | 3 • CO T | 71. | 1.500138 |
| 7.000,77 | 0.444 | -11-0 | 2-7-2 | 24.7 | ₹•068 • | a.¶.;a | 1.006 | 11.6 | 1.00135 |
| 3 • DUUC > | 430.0 | -11.9 | 120+3 | 24.5 | 584 c | U. J.R | 141.5 | 11.5 | 1.000153 |

| 6LODETIC COCAUTHATES 32-40043 CAT LEG 106-37033 COTT DEG | Ihark K Or REFRACTION | 1.000150 | 1.000128 | 1.000126 | 1.0000 | 1.0001.1 | 1.000119 | 1.11,1117 | 1.000115 | 1.000113 | 1.100111 | 1.00109 | 1.000108 | 1.0000100 | 1.60104 | 1.0.10102 | 1.000101 | 1.000099 | 1.000 P |
|--|---|----------|----------|----------|---------|----------|----------|-----------|----------|----------|-------------|---------|----------|-----------|---------|-----------|----------|----------|---------|
| 6L 0DE T10 32• 106• | SPFEU NIOTS | 11.5 | 11.6 | 12.2 | 12.9 | 13.4 | 13.8 | 14.0 | 14.3 | 15.0 | 15.8 | 16.9 | 16.1 | 19.4 | 20.9 | 22.5 | | | |
| | WIND DATA UTHECTIO ST UEGREES(11) AT | 115.7 | 100.0 | 9.66 | 9n•9 | 79.0 | 102.6 | 10/01 | 113.0 | 9.011 | 1111.7 | 113.0 | 108.7 | 103.9 | 100.5 | 70.0 | | | |
| 71 Y | SPEED OF SOUND NIGHTS | _ | 4.1.20 | | | 623.5 | | | | | | | | | | | 608.1 | | 0.500 |
| 1920020446 1920020446 WHITE SALIDS TABLE 13 CONT | DEJSITI OM/CUBIC METER | 571.6 | 562.5 | 553.n | 544.8 | 53n.4 | 520.1 | 520.0 | 511.8 | 504.h | 0.464 | 480.1 | 476.4 | 470.H | 465.3 | 455,9 | 440.7 | 441.0 | 434.6 |
| | REL.HIM. PERCENT | 23.7 | 23.2 | 22.7 | 22.2 | 21.8 | 21.5 | 21.2 | 50.9 | 20.3 | 20.0 | 20.2 | 20.3 | 20.4 | 20.5 | 20.6 | 20.7 | 20.9 | 21.0 |
| 1 .45L N D i | TEMPERATURE AIR DEMPOINT DECRÉES CENTIGRADE | -29.3 | -30.4 | -31.5 | -32.6 | -53.7 | -34.9 | -36+1 | -37.2 | -38•0 | -38.9 | -39.9 | 6.04- | -41.9 | 6•24- | -43.9 | 6.44- | -45.4 | 6.91 |
| 3y89*r0 FEET ASL 120^ HRS NDI 8 | TEM AIR DECREES | -14.9 | -13.9 | 6.41- | -12.9 | -17.1 | -16.3 | -19.5 | 9•02- | -21.3 | -22.2 | -53.4 | 9.46- | 6-52- | -27.1 | ->B+3 | -29.6 | -30.8 | -35.0 |
| 111UDE 3599 100- 448 | PRESSURE HILLIDARS | 427.2 | 413.8 | | | | | | 371.0 | | | | | | | | | | |
| STATICH ALITIUDE 3 11 JULY 81 ASCENSION NO. 448 | GE UNE TRIC ALTITUDE NSL FELI | 3.000cz | 34000-6 | 24500.0 | 25000•6 | 25500•0 | 20609°n | ジ・0りなのタ | 21000Z | 27500.5 | C 4 900 0 3 | C-00582 | 0.00062 | 6.9500.0 | 20000 | 0020G | 21000.0 | 31500.P | J•00022 |

| GE CULTIC COOKUTNATES 32.40043 LAT DEG 106.37033 LON DEG | 2 <u>5</u> | |
|--|---|---|
| 61 CU | ALM, EMIA CTION SPEED LS(TN) KNOTS | 1.00 10.05 1.77 1.77 1.70 11.70 11.71 |
| | ALM. EV DIM, CTION DESKELS(TN) | 174.5 186.1 201.2 172.9 165.7 179.3 186.0 191.3 |
| Lytls 40 IDS | NEL . HUI. | 2 |
| LAMDATORY LLVELS 192002.440 KHITE SMINDS TABLE 14 | TEMLERATURE AIR DEWPOILL DEGREES CENTIGRALE | 12.6 11.3 6.5 6.5 7.4 13.0 13.0 13.0 13.0 13.0 14.0 |
| : | AIR DEGREES | 25.0 2000 116.2 11.8 7.7 3.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1.6 1 |
| T ASL a Di T | PRESGURE GEOPOTINITAL ILLIPARS FEET | 5067. 6060. 8517. 10530. 12554. 14706. 17007. 19430. 22169. 25112. 28363. |
| JOL 3989.00 FIET MSL 12nv RRS a DT 448 | PRESSURE 6 MILLIPARS | 7500 7500 7500 7500 7500 7500 8500 8500 |
| STALION ALTITUDE 11 JULY AL ASCENSION AU | | |

| OE ODE TIL COORDINATES 52-40175 LAT DES | 100.31236 [0] 026 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------|--------------------|----------|--------------------|--------|--------|---------|---------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------------|---------|---------|---------|---------|---------|---------|---------|
| ATA | | REL . HUPi. | PLKCENT | | 0.7. | 45.0 | 46.0 | 48.0 | 94.0 | 0.90 | 0.60 | 52.0 | 0.60 | 0.50 | 0.50 | 0.60 | 57.0 | 01.0 | 74.0 | 29.0 | 0.8⊁ | 53.0 | 41.0 | 0.97 | 0.02 | 25.0 | 23.0 | 0.02 | 70.0 | 74.0 |
| SIGAIFICANT LEVEL DATA 19201an155 LC-37 | 2 | TEMPERATU .E. | DEMPOINT | DEGREES CENTIONALE | 15.0 | 15.1 | 14.3 | 12.9 | 16.4 | 10.2 | 7.00 | 0.0 | 7.0 | 0. | -1.2 | 0.2 | 4.1- | 9.1- | 70.5 | -12.1 | -14.6 | -13.7 | -19.3 | #.55-W | 7.00- | -21.1 | 31 | -37.9 | 144.0 | 140.2 |
| SIGAIFIG 15 | TABLE 15 | 16 MP | AIR | DEGREES | 31.5 | 29.3 | 6.46 | 54.6 | 21.9 | 16.6 | 14.6 | 12.6 | 8.5 | 6.1 | 8•4 | 2.5 | 0. | -1.1 | -4.3 | -5.4 | -5.4 | -6.1 | -8-4 | -9.5 | -12.4 | -15.6 | -17.0 | -21.0 | -59.0 | -31.7 |
| | | PRESSURE OFOMETHIC | ALTITUDE | | 4051.4 | 4340.4 | 51,52.8 | 5728.3 | 6784.7 | 8566.1. | 9658•6 | 10546.6 | 12268.5 | 13431,1 | 14211.6 | 15491.9 | 17112.6 | 17528.4 | 1879b.6 | 19531.9 | 19697.8 | 20574.3 | 21432.2 | 22314.1 | 24112.2 | 25200.0 | 25941.6 | 27817.0 | 31168.9 | 32132.4 |
| 4351.37 FEET MSL 1200 HRS N.DT |) | PRESSURE | | FILLIPARS | 9.678 | 671.0 | 0.050 | 030 • 4 | ტ• UOΩ | 751.6 | 722.8 | 700.0 | 4.75J | 624.8 | 611.8 | 583+2 | 948.6 | 540.0 | 514.4 | 50n·0 | 496+8 | 480.2 | †• †€ | 9.844 | 417.8 | 0.004 | 388.2 | 359.6 | 312.6 | 300.0 |
| STATION ALTITUDE (11 July 81 ASSESSION 60. 18 | | | | | | | | | | | | | | | | | | • | | | | | | | | | | | | |

| TABLE 16 Table 16 | STAFION ALTITUDE 11 JOLY 81 | τυυι | 4051-37 FLET ASE 1200 HRS MDT | T .4SL M.DT | - | UFPLR AIN UNIA 19201/0155 LC~37 | A1 1.0 | | 0E 0DL 11 | 0E 0DE 11C COURTINATES 32-40175 LAT DEG |
|--|---|----------------|--|------------------------|---|---------------------------------------|----------------|---------------------------|----------------|--|
| PRESSORL TERPERATURE RELLINGM DENSITE SPELD OF IND DATA INCOME. SOURD DIME, TOWN SPELD OF MALES CHILDRANG. SURIND DIME, TOWN SPELD OF MALES CHILDRANG. SURIND DIME, TOWN SPELD OF MALES CHILDRANG. SURIND DIME, TOWN SPELD OF MALES CHILDRANG. SURIND DIME, TOWN SPELD OF MALES CHILDRANG. SURIND DIME, TOWN SPELD OF MALES CHILDRANG. SURIND DIME, TOWN SPELD OF MALES CHILDRANG. SURIND DIME, TOWN SPELD OF MALES CHILDRANG. SURIND DIME, TOWN SPELD OF MALES CHILDRANG. SURIND DIME, TOWN SPELD OF MALES CHILDRANG. SURIND DIME, TOWN SPELD DIME, | ice;;510 _i , | 103 | | | ,- - | ABLE 16 | | | 106. | 31232 LUII 1/EG |
| ### OFFICIAL PERCENT ONCORDIL SOURH DILE, TION SIGED ### ALTER OFFICIAL SCHILLIORADE ### ALTER OF | One TRIC | PRESSURL | TERR | ERATORE | REL.HUM. | | SPEEU OF | INL UA | 14 | Itabl A |
| 879.6 31.5 15.0 37.0 994 60.0.5 6.0.0 9.2 951.5 27.1 114.4 42.9 994 10.14 10.2 951.6 27.1 114.4 47.3 96.19 17.9 10.1 952.6 12.4 12.4 97.2 17.9 10.7 703.4 12.4 12.4 96.19 17.9 17.9 703.4 12.4 12.4 96.1 17.9 17.9 703.4 12.4 12.4 96.1 17.9 17.9 703.4 12.4 12.4 96.2 17.9 17.9 10.7 703.4 16.3 11.5 12.6 17.9 10.2 10.0 10. | TITHUE SE FEET | AILLIBARS | AIR DEGREES | DEWPOINT CENTIGRADE | PERCLIIT | GM/CURIC METER | SOUM) KIOTS | DIRECTION DEGRECS(111) | SPEED KNOTS | OF REFEACTION |
| 6bc, 3 26.40 14.9 42.9 992.1 177.5 171.4 9.2 93.0 25.4 13.4 47.5 96.9 177.5 171.4 10.7 93.0 25.4 12.7 47.5 95.1 177.5 177.9 12.1 94.0 25.6 12.4 47.5 95.1 177.9 13.3 11.1 75.4 12.4 95.5 93.5 170.7 177.9 13.3 14.1 17.5 11.5 17.5 11.5 <td< td=""><td>+051-4</td><td>879.6</td><td>31.5</td><td>15.0</td><td>37.0</td><td>4.066</td><td></td><td>J • 0,13</td><td>0.0</td><td>1.000292</td></td<> | +051-4 | 879.6 | 31.5 | 15.0 | 37.0 | 4.066 | | J • 0,13 | 0.0 | 1.000292 |
| 351.5 27.1 11.44 45.7 986.9 677.5 154.6 10.7 357.0 25.4 12.4 47.3 986.9 675.5 175.0 142.4 357.0 25.6 12.4 47.3 986.7 175.0 142.4 360.0 12.4 12.6 55.4 945.7 175.0 142.4 750.0 11.5 10.9 62.2 945.7 175.0 16.5 750.0 11.5 10.9 62.2 945.7 177.9 16.5 750.0 11.5 10.9 62.2 945.7 177.9 16.5 750.0 11.0 10.9 62.2 945.0 177.9 16.5 750.0 11.0 10.9 62.2 945.0 177.9 16.5 750.0 11.0 10.0 10.0 177.9 10.5 177.9 750.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 11.0 | 4509.0 | 860.3 | 28.8 | 14.9 | 45.9 | 997 | | 1.1.4 | 9.5 | 1.00.0292 |
| 937.0 25.4 13.4 47.3 969.9 675.5 12.4 13.4 47.3 969.9 675.5 12.4 13.4 | 5000 | • | 27.1 | 1,1.4 | 45.7 | 980.9 | | 15.4.6 | 10.7 | 1.000208 |
| 92.6.6 23.9 12.7 49.5 95.1 073.7 175.0 14.1 93.4. 22.6 12.4 52.4 94.5 17.4 17.4 13.3 79.4. 12.4 12.4 58.6 94.4 005.5 17.4 13.3 75.4 19.8 11.5 58.6 94.4 005.5 17.4 18.3 75.4 19.8 10.9 65.2 94.4 005.5 17.4 10.5 72.4 19.8 3.6 65.3 84.1 005.2 17.7 10.5 10.5 72.4 19.8 3.2 60.3 87.1 005.4 17.7 10.5 <td>3*00SG</td> <td>837.0</td> <td>25.4</td> <td>13.4</td> <td>47.3</td> <td>6.696</td> <td></td> <td>119.0</td> <td>12.4</td> <td>1.000261</td> | 3*00SG | 837.0 | 25.4 | 13.4 | 47.3 | 6.696 | | 119.0 | 12.4 | 1.000261 |
| 100.0 | 0 00000 | 954.6 | 25.9 | 12.7 | 49.5 | 958.1 | 073. | 175.0 | 14.1 | 1.000277 |
| 79.4.3 21.3 112.0 55.5 993.4. b70.7 1/2.0 12.3 1.7 1/2.0 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 12.3 1.7 1/2.0 | 0.000°C | 3000 | 22.6 | 12•4 | 52.4 | 4.5.7 | | T.+.1 | 13.3 | 1.000273 |
| 769.4 19.8 11.5 58.8 992.0 069.0 177.9 10.5 | (•6eu/ | 5.4.67 | 21.3 | 12.0 | 55.5 | 933.t | | 1/3.6 | 12.3 | 1.000269 |
| 762.48 18.3 10.9 65.2 8910.7 667.2 10.9 65.2 8910.7 667.2 10.9 65.2 8910.7 66.2 7.3 66.3 87.4 66.3 7.3 66.3 87.4 66.3 7.3 66.3 87.4 66.3 7.3 7.3 66.3 87.4 66.3 7.3 | 7500.0 | | 19.8 | 11.5 | 58.8 | 922.0 | - | 177.9 | 10.5 | 1.000265 |
| 752.4 10.8 10.3 65.6 899.4 605.5 10.3 7.3 72.9 14.9 7.2 60.0 877.0 60.4 1.5 6.5 72.9 14.9 7.2 60.0 877.0 60.0 1.5 6.5 713.9 13.7 5.5 56.3 86.2 6.0 1.5 6.0 70.1 13.2 56.3 86.2 6.0 1.5 6.0 6.0 65.0.5 11.5 5.2 6.1 827.2 6.0 6 | 000p | | 18.3 | 10.9 | 62.2 | 910.7 | - | 103.u | 9•0 | 1.000201 |
| 72.09 19.8 | 0.0038 | 150.4 | 16•8 | 10.3 | 65.6 | 899.4 | _ | 1.3.0 | 7.3 | 1・600257 |
| 713.9 13.8 7.8 56.9 87.5 but. 174.1 b.0.0 713.9 13.8 7.8 56.5 85.0 but. 172.0 | 3.000 | 740•7 | | छ । द्र । | 63.2 | 8A7.0 | _ | 1/0.4 | J. J | 642000 · 1 |
| 70.25 15.05 7.5 56.5 85.0 00.0.0.2 175.5 0.0.2 175.5 15.0 0.0.2 175.5 15.0 0.0.2 175.5 15.0 0.0.2 175.5 15.0 0.0.2 175.5 15.0 0.0.2 175.5 15.0 0.0.2 175.5 15.0 0.0.2 175.5 15.0 0.0.2 175.5 15.0 0.0.2 175.5 15.0 0.0.2 15. | 0.000.c. | 7.50.9 | 14.0 | 7.2 | 60.0 | 874.5 | _ | 1.4.1 | 0.:1 | 1.000241 |
| 680.5 12.7 3.2 56.4 B51.0 050.0 172.0 0.4 650.3 61.4 627.2 65.5 66.3 105.0 0.5 105.0 105.0 0.5 105.0 | 0.0000 | 701.3 | ************************************** | , s , s | 56.3 | 862.t. | | 173.5 | ~ . o | 1.0,0233 |
| 653.7 11.5 3.2 55.5 85.4 85.4 105.5 105.9 6.5 105.1 105.9 6.5 105.9 105. | 11500.3 | 7• • 07 | 12.1 | 2.5 | 52.4 | 851.0 | _ | 1/2.0 | 3 · | 1.000225 |
| 650.0 105.9 6.5 66.5 66.5 66.5 105.9 6.7 105.9 6.7 105.9 65.5 66.5 66.5 66.5 105.9 105.9 6.7 105.9 65.0 65.0 65.0 105.9 105.9 6.5 105.9 65.0 105.9 65.0 105.9 105.9 65.0 105.0 | 11,000.6 | • | 11.5 | 3.2 | 26.5 2.4.5 | 854.n | | 163.5 | ر. د | 1.000223 |
| 651.8 | 0.60511 | • | 10.5 | 3.2 | 61.4 | 827.2 | _ | 105.4 | 6.7 | 1.0002.1 |
| 630.9 7.0 2.5 66.5 78.4 65.9 7.0 6.5 78.1 65.0 78.1 155.0 4.9 65.0 78.1 155.0 4.9 65.0 78.1 155.0 4.9 4.9 15.0 4.9 65.0 76.4 65.0 76.4 65.0 15.0 4.9 4.9 15.0 4.9 65.0 75.4 65.0 15.0 4.9 15.0 15.0 4.9 15.0 | 0.00021 | 565.9 | 4.0 | 3.5 | 66.3 | 815.7 | _ | 100.0 | S • 3 | 1.000218 |
| 605.2 | 1,000 | 0.100 | 0 0 | 2.5 | 5.89 | 804.1 | | 1.cc. | ٠. د | 1.000.14 |
| 605.6 6.0 769.2 65.1 102.0 4.9 1 605.0 605.0 769.2 651.1 102.0 4.9 1 605.2 4.3 -1.5 65.9 754.4 640.9 102.0 4.2 1 1 605.2 5.4 -2.1 67.5 740.4 647.9 102.0 4.9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 2.0000 | 6000 | D (| 1.2 | 66.3 | 192.b | | 7.5.54 | `.`. | 100209 |
| 58.0 | 15599.0 | 610.6 |) (| - C | 0.00 | 1.10/ | _ | | ਨ : ਭਾ | #02000·1 |
| 594.0 3.4 -2.1 67.5 745.6 640.9 1.20.2 3.1 155.0 2.5 -4.1 65.2 722.9 640.9 1.20.2 3.1 155.0 2.5 -4.1 65.2 722.9 640.9 1.20.2 3.1 155.0 2.5 -4.1 65.2 7711.6 045.9 1.20.4 1.40.1 2.0 5.8 1.20.2 | 145,00 | 2000 | 3 1 7 | r :: | 0.54 | 7.601 | | 0.201 | V 3 | 567100.7 |
| 583.0 2.5 -2.0 68.9 734.4 047.9 146.1 4.4 572.1 1.7 -4.1 65.2 734.4 047.9 155.0 5.8 155.0 5.8 155.0 5.8 155.0 5.8 155.0 5.8 155.0 15.0 < | 15000-0 | 594.0 |) • t | -2.1 | 67.5 | 740.0 | _ | 1.4.5 |) e | 1.000192 |
| 572-1 1-7 -4-1 65-2 722-9 640-9 155-0 5.8 1 561-4 -9 -5-6 61-5 711-6 045-9 102-4 0-5 1 556-9 -2 -7-1 57-8 701-5 040-4 102-4 0-5 1 540-6 -10 -7-8 65-8 680-4 040-4 170-4 7.1 1 520-3 -2.3 -7-8 65-8 680-4 040-4 170-4 7.1 1 520-3 -3.6 -9.0 71.0 670-7 640-4 170-4 7.1 1 519-4 -4.6 -9.3 69.8 660-0 650-0 170-0 11.6 < | 15500.0 | 580.0 | 2•5 | -2.0 | 68.9 | 734.4 | _ | 1,46.1 | 3. | 1.000109 |
| 561.4 .9 -5.6 61.5 711.6 045.9 102.4 0.5 1 550.9 .2 -7.0 60.7 690.4 045.4 179.4 7.1 1 530.3 -2.3 -7.8 65.8 680.4 045.4 179.4 7.1 1 520.3 -2.5 -7.8 65.8 680.4 100.2 7.1 1 520.3 -5.6 -9.0 71.0 670.4 100.2 7.1 1 510.4 -4.6 -11.3 69.8 660.0 650.1 179.6 7.1 1 510.6 -5.4 -11.3 59.7 650.0 650.0 179.6 7.5 1 491.0 -5.4 -11.3 59.7 650.0 650.0 10.0.0 9.1 1 401.6 -5.4 47.8 650.0 650.0 10.0.0 10.0 1 1 1 1 1 1 1 1 1 1 </td <td>10000</td> <td>572.1</td> <td>1.7</td> <td>-4•1</td> <td>65.2</td> <td>722.9</td> <td>_</td> <td>15.50</td> <td>υ. ε.α</td> <td>1.300184</td> | 10000 | 572.1 | 1.7 | -4•1 | 65.2 | 722.9 | _ | 15.50 | υ. ε.α | 1.300184 |
| 556.9 -7.1 57.8 700.5 644.9 103.1 7.4 1 540.6 -1.0 -7.0 60.7 690.4 945.4 179.4 7.1 1 540.6 -1.0 -7.0 65.8 680.4 945.4 179.4 7.1 1 520.3 -3.6 -9.0 71.0 670.4 100.2 7.1 1 510.4 -4.6 -9.3 69.8 660.0 659.1 179.5 7.5 1 510.4 -4.6 -11.9 59.7 650.0 650.1 179.5 7.5 1 491.0 -5.4 -11.9 59.7 650.0 650.0 10.9 1 <td< td=""><td>0.00504</td><td>561.4</td><td>6.</td><td>· · · · ·</td><td>61.5</td><td>711.6</td><td>_</td><td>102.4</td><td>5.0</td><td>1.000179</td></td<> | 0.00504 | 561.4 | 6. | · · · · · | 61.5 | 711.6 | _ | 102.4 | 5.0 | 1.000179 |
| 540.6 -1.0 -7.0 60.7 60.64 04.54 17.94 7.1 530.3 -2.3 -7.8 65.8 680.4 041.9 170.9 6.9 170.9 | 17003. | 6.054 | Ą. | -7.1 | 57•B | 700.5 | | 103.1 | 7.4 | 1.100174 |
| 520.3 -2.3 -7.8 65.8 680.4 641.9 120.9 120.9 120.0 120 | 17508-0 | 540.6 | -1.0 | -7.0 | 60.7 | h•009 | _ | 179.4 | 7.1 | 1.000171 |
| 523-5 -5-6 -8-0 71.0 670-7 640-4 100-2 7-1 1 1 510-4 -4-6 -9-3 69-8 660-0 059-1 1/9-5 7-5 1 510-4 -4-6 -9-3 69-8 660-0 059-1 1/9-5 7-5 1 510-4 -4-6 -9-4 -11-9 59-7 650-0 053-1 1/9-6 7-5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 10000 | C+0CC | 5.5 | ¥•/- | 65•8 | 683.4 | _ | 70 T | 6.9 | 1.000109 |
| 519.4 | 105,09.3 | 524.5 | -3.6 | U•%- | 71.0 | 670.7 | | 100.5 | 7.1 | 1.000167 |
| 900.6 -5.4 -11.9 59.7 650.0 056.1 109.0 9.1 1 1 491.0 10.0 10.0 10.0 10.0 10.0 10.0 10.0 | 1,7000.1 | 510.4 | 9•4- | £ • · · | 69.8 | 960.0 | 0.59•1 | 179.5 | 7.5 | 1.0.10103 |
| 491.0 -5.6 -16.2 42.8 654.6 657.0 162.4 11.6 11.6 11.6 11.6 11.6 11.6 11.6 11 | 0 • JU', f T | 0•00¢ | 40 | e | 59.7 | 650.0 | _ | 1.3.60 | ••1 | 1.000158 |
| 481.65 -6.0 -17.2 34.3 627.4 0.57.4 15.9 1 12.9 1 472.3 -7.2 -17.4 37.0 610.1 0.59.6 150.0 13.1 1 1 405.2 -8.5 -19.7 39.8 603.0 0.54.1 15.7 1 12.7 1 454.2 -9.1 -23.0 31.3 57.4 0.55.3 1.40.0 11.0 1 40.3 -9.4 -23.9 25.4 57.0 0.24.4 15.0 10.2 1 420.6 -11.4 -27.3 25.0 569.4 0.50.4 110.5 11.1 | 4.0000. | 491.0 | 9•0- | -16.5 | # 7 · X | 63.1.6 | | 100.4 | 11.6 | 1.100151 |
| # \(\cdot \ | J. F. F. F. F. F. F. F. F. F. F. F. F. F. | 48I.4 | 0.9- | Z•01- | 54.3 | 4.1.29 | | 1500 | 12.9 | 1.300147 |
| 405-2 -8.5 -19.7 54.8 603-0 054.1 155.7 12.7 13.6 454.2 -9.1 -23.0 31.3 594.7 055.3 140.0 13.0 13.0 1454.2 -9.4 -25.9 25.4 550.7 052.4 157.4 0.8 13.0 145.6 -10.0 -27.5 25.7 575.0 051.4 150.0 10.2 13.0 140.0 -27.4 22.0 569.4 050.4 110.0 11.1 | J. 1017 | 6.27 | > 1 1 | 5. C. I. | 31.0 | 61.10 | 0.000 | 0.001 | 13.1 | 1.000145 |
| $\frac{1}{440.3}$ $\frac{-9.4}{-9.4}$ $\frac{-25.9}{-27.5}$ $\frac{25.4}{25.0}$ $\frac{530.7}{579.0}$ $\frac{1}{0.22.4}$ $\frac{1}{1.27.6}$ $\frac{1}{0.2}$ $\frac{1}{0.20.6}$ | 215nn.n | 2.504 | ဂ• ဗ • | ~•0I= | χ. • • • • • • • • • • • • • • • • • • • | 200 | 0.54•1 | 1.501 | 12.7 | 1.100143 |
| 450.6 -10.6 -27.5 23.7 579.0 001.4 120.6 10.2 1 420.6 -11.4 -27.5 25.0 569.4 050.4 110.0 11.1 1 | 1 00 00 | 79464 | T • 6: | | 0.10 | 7 . 5 . 6 . | 0.000 | 3 · 3 · 1 | 0.11 | 1.3.0153 |
| 950-6 -11.4 -27.4 22.4 569.4 659.4 110.5 11.1 1 | 0.00077 | 440.0 | 6.06. | | 7. · · | 7.086 | | 10/61 | ε : c : | 1.000135 |
| ****** -11.4 -27.4 27.4 569.4 659.4 110.5 11.1 1 | 3.000.5 | 430.6 | -101-6 | · · / ? - | 23.1 | 5/7•0 | | 150•b | 10.5 | 1.000153 |
| | 5.000me | 7.4024 | -11.4 | T • 1771 | 7. · · · | 56.46 | 1,51) • 4 | 110.3 | 11.1 | 1.00130 |

| STALLON ALITY | 5 | 51+37 Ft. 1201 HRS | ET MSL. NDT | | DPPLR AIN DATA 1920130155 LC-37 | 7,4TA در | | 0E 00ET 1 | GEODETIC COOKUTHATES |
|---------------|-----------|-----------------------|---------------------------|---------------------|---------------------------------------|-------------------|--------------|-------------|----------------------|
| ASCERISTOR | 110. 153 | | | - | TABLE 16 CON'T | T'NC | | 106. | 106.31232 LOW DEG |
| OF OULTRIC | PRES | TEM | TEMPERATURE R DEWPOINT | REL.HUM. PERCENT | DFHSITI GHZCUBIC | SPLED OF SOUND | LING DATA | 1A SPEEU | INUE X CF |
| NSC 1111 | MILLIUNKS | OCCREES | JUNKS DEGREES CENTIGRADE | | | 7.NO15 | DEGREES (IN) | KroTs | REFRACTION. |
| 2400043 | # | -12.2 | -30.3 | 20.4 | 560.0 | 4-6-50 | 111.0 | 12.3 | 1.000167 |
| Ů*VU\$4,7 | 411.4 | -13.5 | -30.7 | 21.8 | 551.8 | | 107.4 | 13.3 | 1.000126 |
| J•63662 | 405.2 | -15.0 | -30.9 | 24.1 | 540.9 | | 1(10.5 | 13.5 | 1.000124 |
| 25500 en | 390.5 | -16.2 | -31. | 24.2 | 535.5 | 054.0 | 105.0 | 13.6 | 1.000122 |
| 0.00002 | 367.3 | -17.1 | -53.3 | 22.9 | 520.8 | | 10.9•0 | 13.3 | 1.000119 |
| 0.00002 | | -18.2 | -34.6 | 22.1 | 514.3 | | 112.0 | 13.0 | 1.000117 |
| 7.000°C | | -19.3 | -35.8 | 21.3 | 510.0 | | 110.0 | 12.6 | 1.000115 |
| 5.00°12 | 364.3 | -50-3 | -37.1 | 20.5 | 501.h | | 119.0 | 12.3 | 1.000113 |
| C00002 | | -21.4 | -33.3 | 20.0 | 493.H | | 119.4 | 15.1 | 1.1000111 |
| U•000€17 | | -22.6 | -39.3 | 20.0 | 485.9 | | 117.0 | 12.1 | 1.000109 |
| 0.00006.7 | | -25.€ | 140.3 | 20.0 | 47001 | | 113.0 | 13.2 | 1.000108 |
| 49509.0 | 333.2 | 1-25.0 | -41.4 | 20.0 | 470.5 | | 110.1 | 14.7 | 1.000106 |
| 3.00000 | 320.2 | 2.95- | 45.4 | 20.0 | 463.0 | | 100.0 | 16.1 | 1.000104 |
| วังเวิบจ•บั | 321.5 | 1-27.4 | 43.4 | 20.0 | 455.to | | 102.1 | 17.5 | 1.00.0102 |
| 5100C. | 314.8 | -28.6 | カ・カカー | 20.0 | †• ○†† | | | | 1.000101 |
| 31,000.6 | 500.2 | 6.62- | -45.2 | 20.7 | 441.4 | | | | 1.000099 |
| \$<0000 | 301.7 | -31.3 | 0.04- | 21.7 | 434.0 | | | | 1.00007 |

| | | ~ | ANDATORY LEVELS | . vt.l.5 | | |
|---------------------------------------|-----------------------|------------------------------------|-----------------------|------------|-----------------|---------------------------------------|
| 110H ALTITUDE MUSISS FEET MSE | ET MSL | | 1920180153 | 55 | | OL UDETIC COUNDINATES |
| JULY 6.1 1200 HRS JUSTO1, 110. 153 | Φ. | | LC-37 | | | 32.40175 LAF DEG 106.51232 LOG DEG |
| | | TA | TABLE 17 | | | |
| PRESCUKE | PRESCURE GEUPOTENTIAL | 1644.5 | TEMPLICATURE | NEL . HUM. | AIK) DAIA | 717 |
| MILLIPARS | FECT | AIR DEMPOINT DEGREES CENTIGRADE | LEWPOTHT ENTIGRADE | | U I KL UĽĠKL | SPLED |
| 0.024 | | 56.9 | 14.3 | ۵. د • | | 6*0 |
| U•00₩ | 6793. | 21.9 | 12.2 | 54. | 174.9 | 12,7 |
| 750.0 | | 16.5 | 10.01 | •00 | | 7,1 |
| 0.007 | | 12.6 | 3.0 | 54. | | 7.0 |
| n.059 | | 7.9 | 2.3 | ÷ 30 | | 0.3 |
| A00.0 | | 3.0 | -1.0 | 67. | | 3.2 |
| 0.003 | | • | -7.3 | 58. | | 7.5 |
| 0.003 | | -5.4 | -12.1 | .63 | | V. V. |
| 0.004 | | 1.6- | -24.1 | 21. | | 0.3 |
| U.001 | | -15.6 | -31.1 | 25. | | 3.5 |
| 0.035 | | -22.5 | -39.5 | 20. | | 2.1 |
| 0 001 | | -41 | 2 | | | |

